

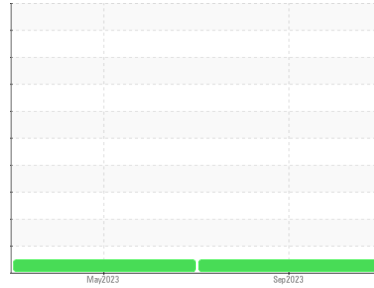
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**


Area  
**(AY398B) Supermarket - Tractor**  
Machine Id  
**FREIGHTLINER 107A1813**

Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 10W30 (11 GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PCA0104088</b>	PCA0097061	---
Sample Date	Client Info	<b>12 Sep 2023</b>	09 May 2023	---
Machine Age	mls	Client Info	<b>45061</b>	29873
Oil Age	mls	Client Info	<b>15188</b>	16422
Oil Changed	Client Info	<b>Changed</b>	Not Changd	---
Sample Status		<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0
Glycol	WC Method		<b>NEG</b>	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>80	<b>60</b>	32
Chromium	ppm	ASTM D5185m	>5	<b>3</b>	2
Nickel	ppm	ASTM D5185m	>2	<b>2</b>	1
Titanium	ppm	ASTM D5185m		<b>0</b>	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1
Aluminum	ppm	ASTM D5185m	>30	<b>29</b>	20
Lead	ppm	ASTM D5185m	>30	<b>0</b>	<1
Copper	ppm	ASTM D5185m	>150	<b>257</b>	404
Tin	ppm	ASTM D5185m	>5	<b>8</b>	8
Vanadium	ppm	ASTM D5185m		<b>0</b>	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	2	<b>14</b>	22
Barium	ppm	ASTM D5185m	0	<b>0</b>	0
Molybdenum	ppm	ASTM D5185m	50	<b>65</b>	62
Manganese	ppm	ASTM D5185m	0	<b>3</b>	2
Magnesium	ppm	ASTM D5185m	950	<b>891</b>	884
Calcium	ppm	ASTM D5185m	1050	<b>1446</b>	1360
Phosphorus	ppm	ASTM D5185m	995	<b>955</b>	972
Zinc	ppm	ASTM D5185m	1180	<b>1225</b>	1217
Sulfur	ppm	ASTM D5185m	2600	<b>2618</b>	3163

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>20	<b>8</b>	6
Sodium	ppm	ASTM D5185m		<b>4</b>	3
Potassium	ppm	ASTM D5185m	>20	<b>85</b>	49

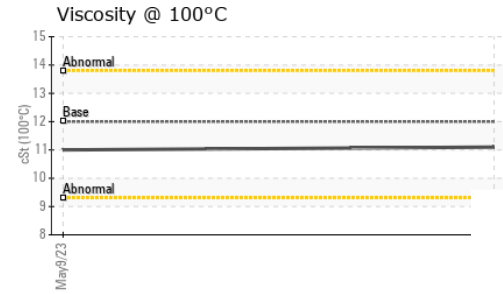
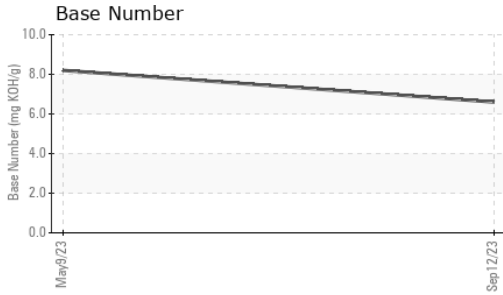
## INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>1.5</b>	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.5</b>	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.4</b>	20.9

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.0</b>	16.7
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.6</b>	8.2

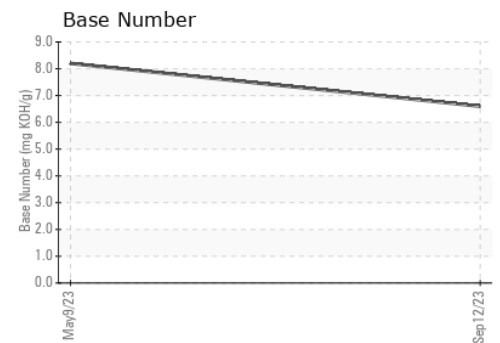
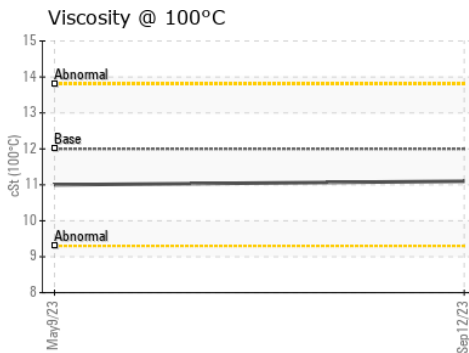
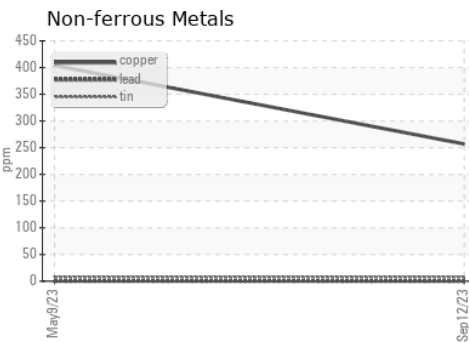
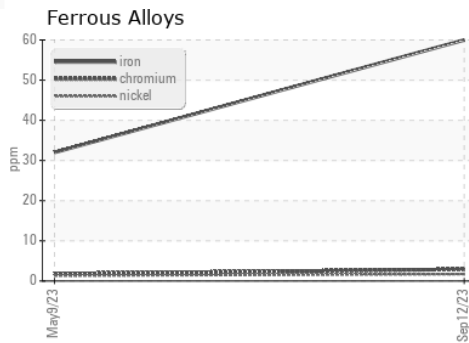
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.1	11.0

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0104088 **Received** : 22 Sep 2023  
**Lab Number** : 05958450 **Diagnosed** : 22 Sep 2023  
**Unique Number** : 10659663 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**Transervice - Shop 1071 - Supermarket-Dayton**  
 60 A Tower Road  
 Dayton, NJ  
 US 08810  
 Contact: Brian Quinn  
 bquinn@transervice.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: